

Rhode Island Economic Monitoring Collaborative

Report to the

Rhode Island Bays, Rivers, and Watersheds Coordination Team

Proposed Economic Monitoring Strategy

October 2005

Executive Summary: This proposal presents an economic monitoring strategy for Rhode Island's water cluster in order to support the Coordination Team's development of a Systems-Level Plan and coordinated management activities. The strategy includes three primary elements – measures of sector size, health and performance, measures of public investment, and monitoring of key conditions affecting the water cluster. The requested year one budget for implementing the strategy is \$80,000 to be complemented with \$20,000 of in-kind contribution.

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Introduction

The Rhode Island General Assembly created the RI Bays, Rivers and Watersheds Coordination Team in order to optimize the State's effort to protect Narragansett Bay and its watersheds as well as to promote sustainable economic development for businesses that rely on these resources. To aid the Coordination Team in the development of its mandated Systems-Level Plan (SLP) and to support the projects that it undertakes, the General Assembly called for several standing committees, including the Economic Monitoring Collaborative (the Collaborative).

Charge to the RI Economic Monitoring Collaborative

According to the enabling legislation (RIGL 46-31), the purpose of the Collaborative is to develop and implement an economic monitoring strategy to inform the "promotion of sustainable economic development of the water cluster" and "provide the necessary information to adapt the (systems-level) plan in response to changing conditions." The legislation specifically calls for:

"baselines, protocols, guidelines, and quantifiable indicators for assessing the economic health and performance of the water cluster. Economic indicators shall include, but not be limited to, the following aspects where or when appropriate and/or available: (1) total gross state product originating in the water cluster; (2) direct and indirect employment in the water cluster; and (3) public expenditures for infrastructure to support the water cluster." (RI 46-31-9)

Strategy Preparation

Several activities have occurred over the past year in order to aid the Collaborative in its preparation of the monitoring strategy called for in the legislation. Although the Governor did not appoint the official Collaborative membership until January of 2005, an ad hoc group began work in the fall of 2004. This ad hoc group included several members of the current Collaborative (see Appendix A for Collaborative membership). Table A presents the activities of the ad hoc group and Collaborative over the past year.

Table A: Timeline of Activities
Fall 2004
<ul style="list-style-type: none">• First meeting of members named in legislation to discuss first steps.• First ad hoc group meeting: presentations by Kenneth Payne and Charles Colgan on two recent comprehensive research efforts on documenting RI's marine economy.• Preparation of annotated bibliography on recent sector-specific research on marine industries in RI.
Winter 2004-2005
<ul style="list-style-type: none">• Capability Mapping Workshops: ad hoc group went through four ½-day sessions to develop a deeper understanding of state's water cluster and identify catalytic projects to enhance the cluster. This work informed the current monitoring proposal.• First Report to General Assembly: submitted January 31, 2005.• Governor Donald Carcieri nominates Economic Monitoring Collaborative membership.• First Economic Monitoring Collaborative meeting: members refined the water cluster definition and determined that sector specific meetings are necessary to develop a monitoring strategy.
Spring 2005
<ul style="list-style-type: none">• Sector Meetings: sector specific meetings were held in which Collaborative members and other industry experts discussed measures to include in monitoring strategy.
Summer 2005
<ul style="list-style-type: none">• Report drafted to summarize findings from sector meetings and previous research in preparation of the monitoring strategy.
Fall 2005
<ul style="list-style-type: none">• Economic Monitoring Collaborative meeting: economic monitoring strategy discussed and approved for submission to the Coordination Team

Through this combination of informational meetings, strategic workshops and independent research, the Collaborative developed the following monitoring proposal. The hope is that the proposal will be approved by the Coordination Team and integrated into its FY07 workplan and budget.

Proposed Economic Monitoring Strategy

In order for the Collaborative to meet the charges of the legislation, it must implement a strategy composed of three key elements to monitor:

- Sector size, health and performance of the water cluster,
- Public investment in related infrastructure, and
- Conditions affecting its vitality.

All of the sectors within the water cluster face limitations in the breadth and quality of existing economic data. Traditional data sources often do not define industries in the precise way we want to consider them and may not be able to capture the full impact of a sector. For instance, commonly used employment data from the Bureau of Labor Statistics (known as ES-202 data) cannot account for self-employed individuals and suppresses industries where only a few firms exist (even if those firms employ a significant number of employees). Thus, sector specific data collection will be required to supplement existing sources.

In addition, some necessary monitoring elements will represent the first attempt to comprehensively collect and analyze data. The elements related to measuring public investment and monitoring key conditions will be areas where methodology will need to be developed.

Also, the relationship of the water cluster to other core elements of the SLP must be considered as part of the monitoring strategy. For instance, beyond their economic impact, Rhode Island's marinas provide significant public access opportunities. On the other hand, marinas compete with other forms of coastal development (e.g. residential construction or industrial development) which offer different values to the state and its communities. It is critical for the Collaborative to present the potential synergies and trade-offs associated with the water cluster as the Coordination Team develops a balanced management strategy for the state's bays, rivers and watersheds.

Defining the Water Cluster

The enabling legislation defines the water cluster as:

“an economically interconnected grouping of businesses, institutions, and people relying directly or indirectly on the bays, rivers, and watersheds including, but not limited to, the following sectors: (i) recreation, tourism, and public events; (ii) fisheries and aquaculture; (iii) boat and ship building; (iv) boating-related businesses; (v) transportation; (vi) military; (vii) research; and (viii) technology development and education.” (RIGL 46-31-2)

After reviewing existing literature on the state's water cluster and with guidance from its members, the Collaborative refined the definition of the water cluster to include nine core sectors:

- 1) Marine recreation, marine tourism, marine events, and marinas: this sector includes all tourism and recreation activities that are dependent or enhanced by their relationship to the coast.¹ In a recently completed study of the marine tourism economy, Tyrrell et al. (2004) estimates that approximately 30

¹ The Marine Cluster, An Investment Agenda for Rhode Island's Marine Related Economy (RI Senate Policy Office, 2002) defines the recreation/tourism component of this sector as including “visits to coastal parks and beaches, boating, fishing and other water related sporting activities, and marine and water related historical and cultural sites. These activities...support related tourism industries such as restaurants, hotels, retail stores, museums, and transportation providers”. Although this 2002 report separates marine events from their recreation and tourism cluster, the Economic Monitoring Collaborative has chosen to include them in one sector of related activities.

percent of the state's tourism impacts are related to the marine environment. Other recent approaches to estimating Rhode Island's coastal economy yielded similar results (Tyrrell, 2005). In addition to Rhode Island based activities, it will be important to examine regional connections, such as out-of-state ferries with Rhode Island destinations.

- 2) Commercial fishing, aquaculture, and seafood processing: this sector includes all commercial fishing, aquaculture and seafood processing activities.
- 3) Boat building, shipbuilding, and boating-related businesses: this sector includes all boat building, shipbuilding and boating-related activities. Although boat and ship building are grouped within one core sector, the Collaborative intends to discuss their composition and value as distinct industries within the water cluster.
- 4) Water-borne transportation: this sector includes all maritime freight transportation and port facilities. In addition to gathering data for Rhode Island's ports, the Collaborative will need to examine the activities at Fall River as they use the Narragansett Bay transportation route.
- 5) Defense, homeland security, and marine technology: this sector includes defense-related firms as well as those engaged in marine technologies related to defense activities. These activities include specialties such as systems integration, data fusion, acoustics, remote sensing and signal processing. Although much of Rhode Island's defense industry is arguably unrelated to its proximity to the coast, many of these technologies were initially developed with marine uses in mind and thus are considered within the water cluster. In addition, many of these firms are located in coastal communities at present.
- 6) Marine, coastal & inland watershed education, research and advocacy: this sector includes all research, education and outreach activities focused on the marine, coastal and inland water environment. It also includes advocacy organizations focused on the health of these environments.
- 7) Waterfront real estate: this sector includes examining waterfront real estate in order to understand its current and potential use and value. This analysis is critical because it will tell the story of the changing character of our waterfront areas and how forces such as the market and land use policies shape new opportunities.
- 8) Water-related Utilities: this sector includes power generation and storage, water supply, and wastewater facilities that rely on water resources.
- 9) Other Water-dependent Sectors: this sector would capture other water-dependent industries that are identified during the monitoring effort. Potential industries include bio-manufacturing and agriculture.

To some degree, all of the state's businesses rely on the health of our watersheds. However, the focus of the Collaborative is to identify those which rely heavily on the state's water resources. As the Collaborative develops a better understanding of which industries are reliant on water resources, the sectors identified will be further refined.

Sector Size, Health and Performance

The Collaborative identified key measures of sector size, health and performance in order to provide baseline information for the Coordination Team's efforts. Ultimately, this information will help policymakers better understand how changing conditions (including policy decisions) affect the water cluster.

The following core measures will be examined for the sectors:

- Firms, employment and wages: the number of firms, employment estimates and wage levels will be presented for the sectors when appropriate.
- Value Added: one or a combination of measures will present the value-add of sectors, including Gross Product Output, value chain mapping, and/or other sector-specific measures.
- Tailored indicators of performance/amenity: given the diversity in composition and value of the sectors, other measures will need to be developed in order to present a more robust picture of the water cluster. For instance, the waterfront real estate sector requires a very different approach for measuring value, including an analysis of waterfront acreage and land use.

Appendix B includes a detailed description of proposed measures and other information to be collected for each of the nine sectors. During its first year of funding, the Collaborative plans to work with a consultant on refining these measures, collecting and analyzing the necessary data, and presenting the first monitoring report. The Collaborative estimates that this element of the strategy would require \$75,000 in funding during the first year of monitoring.

Public Investment

Public investment in the water cluster infrastructure can be tracked through examining annual government allocations and bond issues. Many public investments affect the entire water cluster, making it difficult to allocate the impacts. When possible, the Collaborative will highlight investments in specific sectors but often, the discussion of public investment will be more broadly examined. The Collaborative plans to develop a survey to state government, supplemented with a budget analysis to determine investments in the water cluster. The Collaborative estimates that this element of the strategy would cost \$5,000 for the first year of monitoring.

Conditions Monitoring

Perhaps the most valuable of the Collaborative's roles is its potential to provide critical information to the Coordination Team on the conditions affecting the water cluster, especially in terms of policymaking. In the winter of 2005, an ad hoc group, representing a mix of industry sectors and environmental interests, went through four strategic planning workshops that took a first cut at identifying key conditions and projects necessary to enhance the water cluster (although this group convened prior to the appointment of the Collaborative, several Collaborative members took part).

Although this effort produced meaningful insight (see Appendix D for a summary of the workshops), there is a need to further refine our understanding of the issues affecting individual sectors within the water cluster. While the sectors will be examined separately, focus will be paid to connections among them as well as to target elements of the SLP. This approach will help identify policy actions that can enhance the value of the water cluster in the state. These analyses will also complement previous efforts to identify potential policy actions for supporting the water cluster. The Collaborative estimates that this element of the strategy would cost \$40,000 over the first two years, with most of the expense occurring in year two.

Sector Survey

The development of a survey to the firms and organizations within the water cluster could add great value to all three elements of the monitoring strategy above. It could supplement our understanding of sector size, health and performance, validate our information on key public investments, and further our understanding of conditions and issues affecting water-related industries. Although a survey of this type would be unwieldy in most states, RI is at an advantage given its size and existing networks among industries. In addition, the Collaborative could take advantage of existing survey efforts at RIEDC, complemented with web-based survey tools to make the process more efficient and accessible. The Collaborative estimates that this element of the strategy would cost \$5,000 for the first year of monitoring.

Monitoring Products

The Collaborative will present its findings in three ways:

- Annual report: a report will be produced for the Coordination Team on an annual basis, which summarizes the findings from all elements of the strategy outlined above.
- Annual presentation: the Collaborative will present the annual report to the Coordination Team and other interested parties, potentially in coordination with the environmental monitoring effort.
- Other Communication: the Collaborative will post interim findings and key information on its website, <http://www.ci.uri.edu/RIBayTeam/EconMon.htm>. It will also communicate with the Coordination Team on a regular basis through the Coordination Team's monthly meetings.

Timeline

Table B provides the timeline of Collaborative activities slated for FY06. This timeline assumes that some monitoring groundwork would be completed prior to the start of the fiscal year, particularly on the sector and public investment surveys.

Table B: Proposed Timeline	
<u>Element</u>	<u>Timing</u>
Develop Request for Proposals (RFP) for consultant-provided monitoring elements, approval by the Collaborative & Coordination Team	July 2006
Publish RFP and collect proposals	August 2006
Preparation of FY08 Budget request for economic monitoring	July - September 2006
Consultant review by the Collaborative & recommendation to the Coordination Team	September 2006
Approval of FY08 proposed budget/strategy by Collaborative, passed onto Coordination Team	September 2006
Data collection and analysis by consultant and Collaborative partners	September 2006 – January 2007
Preliminary Monitoring Reports to the Collaborative	February 2007
Synthesis of Reports into Final Report	February – April 2007
Final Report to Collaborative	May 2007
Report & Presentation to the Coordination Team	June 2007

Budget

Table B presents a summary of the costs of the proposed monitoring strategy and administrative support necessary for the operation of the Economic Monitoring Collaborative.

Table B: Proposed Budget	
<u>Element</u>	<u>Year One Cost</u>
Baseline Measures	\$ 75,000
Sector Surveys	\$ 5,000
Public Investment Survey & Analysis	\$ 5,000
Conditions Monitoring	\$ 10,000
Administration	\$ 5,000
Total	\$100,000

For year one of the monitoring effort, the RI Economic Policy Council will provide in-kind administrative support with the expectation that a fully funded Coordination Team office will assume this role in

subsequent years. The expense of the monitoring strategy would be incurred through a combination of consultant-based work and in-kind agency/partner costs. The Collaborative estimates that this split would be \$80,000 and \$20,000 respectively.

This strategy represents a first cut at an economic monitoring effort for the state's water cluster that provide essential baseline data that will help the Coordination Team make better policy decisions. The Collaborative fully intends to adjust this strategy as is necessary to present the most accurate and robust picture of the water cluster. Over time, the Collaborative's aim is to build capacity within the Coordination Team and its agencies so that economic monitoring becomes a more significant component of management efforts and ultimately is integrated with environmental monitoring efforts.

References

Rhode Island Senate Policy Office. 2002. *The Marine Cluster: An Investment Agenda for Rhode Island's Marine Related Economy*. Available online at <http://www.ci.uri.edu/RIBayTeam/EconMon.htm>.

Tyrrell, Timothy. 2005. *Rhode Island's Marine Industry Clusters: Preliminary Baseline Data, Draft May 20, 2005*. Reported to the Economic Monitoring Collaborative Committee of the Rhode Island Bays, Rivers and Watersheds Coordination Team.

Tyrrell, Timothy Gabriela Dobrot and Elissia Wahl. 2004. *Rhode Island's Marine Tourism Economy, Final Report to the Rhode Island Sea Grant Program*.

Appendix A – Rhode Island Economic Monitoring Collaborative Membership

Christopher Bergstrom	RI Economic Policy Council (Chair of the Collaborative)
Christopher Brown	RI Commerical Fisherman's Association
Barry Costa-Pierce	RI Sea Grant College Program
Andrew Dzykewicz	RI Economic Development Corporation
Geoff Grout	Quonset Development Corporation
Michael Keyworth	Brewer Cove Haven Marina
Kenneth Kubic	RI Marine Trades Association
Michael Marchetti	RI Lobsterman's Association
Michael McGiveney	RI Shellfisherman's Association
E. Howard McVay, Jr.	Northeast Pilots Association
Stephen Medeiros	RI Saltwater Anglers Association
Richard Nadolink	Newport Engineering & Science Company
Mark Pearson	Pearson Composites (former President)
Brad Read	Sail Newport
Eric Reid	Deep Sea Fish of RI
Gary Schuler	Senesco Marine (former CEO)
Michael Slein	Raytheon Intergrated Defense Systems
Curt Spalding	Save the Bay
Jon Sutinen	URI – Dept. of Environmental and Resource Economics

Appendix B – Indicator Detail for Water Cluster

- Marine Recreation, Marine Tourism, Marine Events & Marinas
 1. Firms, Employment & Wages: both of these measures can be estimated by using the BLS ES-202 data. This data is available on a quarterly and annual basis. The most appropriate way to analyze it is to compare the annual figures or to compare the same quarter year-to-year.
 2. Value Added: value added could be measured in several ways. Gross Product Originating (GPO) is equivalent to the wages, profits, returns to capital and indirect business taxes of an industry. It is a measure of the contribution of individual industries to a state's output or Gross State Product (GSP). According to preliminary research conducted for the Collaborative, GPO could be estimated from ES-202 data using an economic modeling program such as the Minnesota IMPLAN group (Tyrrell, 2005). A value chain analysis could also be used to map the value-adding activities of its industries, from its primary activities to its support activities. It would allow us to understand how specific components of this sector interact with other industries in the state. Although this type of analysis would be infeasible for the whole sector, using a case-study approach for specific industries within it would result in a better understanding of the sector's value.
 3. Recreational amenity: developing a measure for user amenity is important because it allows the Collaborative to relate the water cluster's value to other elements of the SLP. Potential measures include beach/park usage or recreational fishing trips. Boater spending is another way to tie an economic value to the state's recreational use. According to the sector meetings held in June, no existing data source accurately measures these elements in Rhode Island and thus a tailored or at least more refined approach will need to be considered.
 4. Resource use intensity: the development of a measure of resource use intensity is also important in relating the Collaborative's work to other elements of the SLP. Potential measures included the number of available marina slips and moorings and the number of public access points.
 5. Marine event impacts: although the Collaborative could determine the number and type of marine events held in the state, it would be difficult to measure each one's impact. It may be better to study one event of each type and use that as a base model for understanding the types of impacts events have on the state's economy.
- Commercial Fishing, Aquaculture, and Seafood Processing
 1. Firms, Employment & Wages: seafood processing could be estimated from ES-202 data, aquaculture from CRMC's annual aquaculture report, but determining an accurate employment figure for commercial fishing is more difficult. There may be potential to derive employment data by examining recorded landings and developing coefficients for different types of fishing. In addition, NMFS vessel trip data may supply crew size information for all federally reported trips.
 2. Value Added: see sector above for description.
 3. Landings Value: this is a commonly used measure to estimate fishing's impacts and is one that could present a comparative look of RI's fishing industries to others nationwide.
 4. Commercial licenses: this information is collected by RI DEM.
- Boat Building, Ship Building and Boating-related Businesses
 1. Firms, Employment & Wages: both of these measures can be estimated by using the BLS ES-202 data. Depending on how the "boating-related businesses" are defined, this sector may capture some of the firms that are closely related to the marine recreation and tourism sector.
 2. Value Added: see marine recreation sector above for description.
 3. Productivity: this measure was brought up at the sector meetings in June as another way to present a fuller picture of the sector. Potential metrics include the number submarine hulls built per year or the boats built per year.

- Water-borne Transportation
 1. Firms, Employment & Wages: although the ES-202 data would present an estimate, it may be useful to supplement this information with survey to port facilities and related entities.
 2. Value Added: see marine recreation sector above for description.
 3. Usage: potential measures that allow us to understand bay usage in this category include the types of transportation (e.g. cargo, passenger), the number of trips, and the dwell time for cargo at port.

- Defense, Homeland Security and Marine Technology
 1. Firms, Employment & Wages: although some estimate of employment could be derived from ES-202 data, it will need to be supplemented with additional data either from other data collection services or through an industry survey. RIEDC already surveys defense firms for some industry information and this existing tool could be leveraged for the Collaborative's strategy.
 2. Value Added: see marine recreation sector above for description.
 3. New business formation: understanding innovative uses and firm creation from this sector has great potential to connect this sector's capabilities to other needs of the SLP. For instance, exploration has and continues to occur on the possibility of using defense-based remote sensing technologies for environmental monitoring. The Collaborative could examine current activities related to expanding potential uses for existing and emerging technologies. Areas to examine include Slater Center funding, new patents, and research activities between the defense sector and universities.

- Marine, Coastal & Inland Watersheds Research, Education, Outreach and Advocacy
 1. Employment: ES-202 data does not provide an appropriately segmented estimate to measure employment in this sector. An estimate will need to be derived from other sources such as the National Center of Education Statistics (NCES) and supplemented with institution-specific data.
 2. Research Funding: this is a key economic indicator for estimating value at institutions of higher learning. We could examine funding in a variety of ways, such as the state's grant success rate, grant size, and market share of federal funding sources.
 3. Marine Departments & Graduates: Rhode Island's institutions play a critical role in educating future leaders in marine policy and marine-related activities. We need to present a picture of the different ways we are educating our students on the marine environment (e.g. different marine departments) and the number of students graduating in these fields. This information can be estimated using the same sources cited for employment data in this sector.
 4. Research Spin-offs: determining the number of profit and non-profit spin-offs is another way to examine the impacts of research at our institutions of higher learning and related research entities. This could be examined by collecting data from the institutions and independent research.
 5. "Excellence": recognition of Rhode Island's contribution to marine-related research and education is another valuable indicator. This could also be determined by collecting information from our institutions of higher learning.
 6. Membership & Volunteer Activity: a significant amount of work is conducted through organizations' membership and volunteer activities. It will be important to capture this source of support for water-related issues. This data could be collected from the organizations included in this sector.

- Waterfront Real Estate
 1. Acreage: this could be determined through a GIS analysis.
 2. Assessed value & taxes generated: these two measures could be determined by examining tax assessor records in waterfront communities once a geographic area was defined.
 3. Mix of land use: this would be an important indicator in understanding how our waterfront lands are currently used. This could be examined initially using a GIS analysis and updated with more recent land use information from communities.
 4. Zoning: this information would be a key indicator of potential land uses along the coast and provide us with the potential future picture of our coast.

5. Vacant space: although examining land use would provide some information on vacant space, a more detailed analysis will be necessary to understand the potential that exists for coastal development, particularly in urban areas.
- Water-related Utilities
 1. Firms & Employment: could use ES-202 data supplemented with other collected information.
 2. Water Usage: would use a variety of state and federal data sources to estimate water usage.
 - Other Water-dependent Sectors:
 1. Firms, Wages & Employment: could use ES-202 data supplemented with other collected information.
 2. Water Usage: would use a variety of state and federal data sources to estimate water usage.

Appendix C – Winter 2005 Workshop Summary

Developing a Strategic Platform for Rhode Island's Water-related Industries

Following the creation of the Coordination Team in the spring of 2004, the Economic Monitoring Collaborative members specifically named in the legislation decided to move forward with the groundwork necessary to develop the economic monitoring strategy. In addition to gathering existing research on the state's water cluster, they convened representatives of RI's water-related sectors, as well as other stakeholders, to go through a strategic planning process focused on achieving sustainable economic development for the state's water cluster.

This group, representing a mix of industry sectors and environmental interests, went through four half-day workshops where they discussed the opportunities and challenges facing the water cluster and identified key interventions that have the potential to add great value to Rhode Island's water-dependent sectors while maintaining effective stewardship of the Bay and its watersheds.

Key Interventions

The interventions that the group identified relate directly to the conditions facing the water cluster (the existing and emerging challenges and opportunities) as well as the state's existing capabilities within these sectors and related institutions (e.g. our research universities). They include recommended actions around specific sectors as well as broader projects to foster a supportive environment for these industries.

Sector Specific Projects

- Maritime Security Testbed and Showcase – the wake of the attacks on 9/11/01 has created a focus on security throughout the U.S. and the world. While the federal government has responded aggressively to potential air threats, it has not developed a coherent strategy to monitor and protect our coastal waters and ports. Given Rhode Island's strength in surface and underwater monitoring and defense (e.g. Raytheon, the Naval Undersea Warfare Center and URI's Graduate School of Oceanography), and the geographic resource of a deep water bay that is already well-instrumented, we have the opportunity to be a leader in the development, testing and demonstration of maritime security. For this to occur, we need to pursue two key actions.

First, we need to find a way to bring together our large and small defense firms and research institutions to adopt a shared vision of creating a "Center of Excellence" in maritime security technologies and demonstration. Second, we need to work with our federal delegation to promote Rhode Island's work at the federal level. Since the federal government has yet to define the parameters for maritime security, we have the chance to be instrumental in their development, and to capture a larger share of the ultimate federal investment in maritime security.

- Redefine and Redesign Tourism – Tourism is one of the largest components of the coastal economy, both nationally and in Rhode Island. But tourism can also be a means of supporting key water and waterfront amenities that contribute significantly to RI's bays, rivers and watersheds as recreation resources for residents. We need to look at tourism as both an end in itself, *and as a means to an even more important end*. What kinds of amenities that are of high value to the state's residents could tourism help to create? What is the optimal amount and type of tourism? By doing a focused design study to explore this opportunity, we could better understand and leverage this key component of our economy.

- Marine Freight Research – The Port of New York and New Jersey continues to experience growth in container traffic that is pushing against the capacity of the interstate highway system--especially on I-95—in the New York metro to move the containers out the ports by truck. There will be increasing pressure to move containers via inter-coastal barges, some of which will seek to land at Quonset and the Port of Providence. However, increased barge traffic could negatively affect other uses of the Bay, such as marine recreation and commercial fishing. We should conduct a study of alternatives to barges for moving containers which would have a lesser impact on other uses. One possible alternative is “fast truck ferries” which use Roll On/Roll Off technology for which Quonset is currently configured.
- Marina Design – Rhode Island’s marinas benefit from a protected waterfront, deep draft for boats and a favorable tax policy for boat owners. These features draw boat owners from within and outside the state to our shores. However, our marinas are reaching their capacity and have to compete with other increasing waterfront development pressures. We need to develop more cost-effective and environmentally sensitive ways for marinas to develop, which provide for greater public access and integrate marinas into larger place-making projects that balance the demand for waterfront uses. This should be the focus of a design studio project.

Broader Projects

- Foresight, modeling and pattern recognition – the General Assembly charged the Economic Monitoring Collaborative with the development of a monitoring strategy for the state’s water cluster. Although the legislation focuses on developing baseline measurements to measure health of existing sectors, the Collaborative’s role needs to go beyond this in order to capture emerging opportunities in water-dependent sectors. The Collaborative needs to develop a way to monitor emergent conditions that affect the water cluster so that it can best advise the Coordination Team on ways to respond to changing conditions. This is conceived as an “array of listening posts”...each “listening post” is a person who already monitors a relevant emerging condition as part of the normal work they do. The “array” would network the individuals through the creation of a technology platform to enable efficient information pooling. This could be a project of the Economic Development Corporation’s Business Innovation Factory and could probably attract private and foundation sponsorship.
- Waterfront Place-making – the future of our Bay depends in large part on the way we develop our waterfront. With increasing demand for waterfront access and use, fragmented land use decision making, and an underdeveloped design capability at the state and local level, Rhode Island runs the risk of developing its waterfront without making livable places and attractive spaces. The state needs a more robust “place-making” capability, which could be achieved by better connecting design to development. The Metro Bay Area Special Area Management Plan (SAMP) has the potential to be the first large-scale place-making effort. This project could create more of a design capability at CRMC, connect the waterfront visions of the Metro Bay communities, and provide opportunities to link the state’s design and development community.
- Identifying 21st Century Marine Industries Through EPSCoR – we may not know what the future holds in terms of 21st century water-related industry demands, but a strong research and development capability will put us in a competitive position to shape how we respond to these emerging conditions. The RI EPSCoR program proposes to strengthen the state’s life sciences research infrastructure, with an emphasis on marine and environmental science and with a focus on rapid commercialization of innovative research findings and technologies. The State needs to support the development of this program and its efforts to create meaningful collaboration among institutions of higher learning, government and business.

- Transferring Our Defense Capabilities to Environmental Management – great potential exists in the crossover of our defense/maritime security monitoring systems to environmental monitoring of the Bay. The Naval Undersea Warfare Center has already wired a quarter of the bay bottom to enable real time monitoring via unmanned underwater vehicles. These can be equipped with instrumentation to enable real-time environmental monitoring of the bay to enable more fine-grained environmental management. This is an opportunity which we should explore with the congressional delegation in terms of federal support for a pilot project.

This “project” list is just the beginning of a robust approach to enhancing our capabilities in the water cluster. This work will be further informed by the strategic planning process that the Coordination Team Ad Hoc Working Group is currently going through as well as the sector task teamwork that the Economic Monitoring Collaborative will be undertaking this year.

Participants in the Winter 2005 Strategic Planning Process

Invited: Christopher Brown (RI Commercial Fishermen’s Association), Jim Boyd (Coastal Institute), Ames Colt (RI Sea Grant), Barry Costa-Pierce (RI Sea Grant), Geoff Grout (Quonset Development Corporation), Michael Keyworth (Brewers Cove Haven Marina), Kenneth Kubic (RI Marine Trades Association), Virginia Lee (Coastal Resources Center/RI Sea Grant), Kelly Mahoney (RI Senate Policy Office), E. Howard McVay (Northeast Pilots Association), Richard Nadolink (NUWC), Katherine O’Dea (Tech Collective), Peg Parker (RI House Policy Office), Ken Payne (RI Senate Policy Office), Mark Pearson (Pearson Composites), Donald Pryor (Brown University), Brad Read (Sail Newport), Eric Reid (Deep See Fish of RI), Gary Schuler (Senesco), Michael Slein (Raytheon), Scott Thurber (Advantech Business Builders), Tim Tyrrell (URI – Resource Economics), and Mike Walker (RIEDC).

Participated in one or more workshop: Kip Bergstrom (RI Economic Policy Council), Ames Colt (RI SeaGrant), Geoff Grout (Quonset Development Corporation), Ariana Johnson (RI Economic Policy Council), Michael Keyworth (Brewers Cove Haven Marina), Virginia Lee (Coastal Resources Center/RI Sea Grant), Kelly Mahoney (RI Senate Policy Office), Katherine O’Dea (Tech Collective), Peg Parker (RI House Policy Office), Mark Pearson (Pearson Composites), Michael Slein (Raytheon), Scott Thurber (Advantech Business Builders), and Tim Tyrrell (URI – Resource Economics).